

WHAT IS CLAIMED IS:

1. A method of manufacturing an elongate stack of interlocked laminae in a die assembly having means for guiding strip stock material through the die assembly, stamping means and a choke passageway, said method comprising the steps of:

5 stamping a first lamina having generally opposed first, second, third, and fourth edges in the strip stock material;

stamping at least one first interlock element in the first lamina;

separating the first lamina from the strip stock material;

placing the first lamina into the choke passageway;

10 stamping a second lamina having first, second, third, and fourth edges in the strip stock material;

stamping at least one second interlock element in the second lamina;

at least partially engaging the first and second interlocking elements;

separating the second lamina from the strip stock material;

placing the second lamina into the choke passageway; and

15 frictionally engaging the choke passageway along the third and fourth edges of only one of the first and second laminae.

2. The method of Claim 1, further comprising a step of stamping one of a notch and a protrusion at one of the first and second edges of one of the first and second laminae.

20 3. The method of Claim 2, wherein said step of stamping one of a notch and a protrusion occurs at a die assembly blanking station.

4. The method of Claim 2, further comprising one of a step of sliding a notch provided in a lamina over a ridge provided in the choke passageway and a step of sliding a protrusion provided on a lamina in a groove provided in the choke
25 passageway.

5. The method of Claim 1, further comprising the step of urging the second lamina into complete interlocking engagement with the first lamina after the step of at least partially engaging the first and second interlocking means.

6. The method of Claim 1, wherein one of the first and second interlocking elements comprises a protuberance extending from a first surface of one lamina, and

the other of the first and second interlocking elements comprises a recess provided in a second surface of another lamina, the first and second surfaces disposed adjacent one another, the protuberance received in the recess.

7. An elongate stack of interlocked laminae manufactured in accordance with the method of Claim 1.

8. A method of manufacturing an elongate stack of interlocked laminae in a die assembly having means for guiding strip stock material through the die assembly, stamping means and a choke passageway, said method comprising the steps of:

- stamping a first lamina in the stock material;
- 5 stamping at least one first interlock element in the first lamina;
- separating the first lamina from the strip stock material to yield a first laminar segment having a first outside perimeter shape which has a first edge;
- placing the first laminar segment into the choke passageway;
- stamping a second lamina in the stock material;
- 10 stamping at least one second interlock element in the second lamina;
- at least partially engaging the first and second interlocking elements;
- separating the second lamina from the strip stock material to yield a second laminar segment having a second outside perimeter shape which has a first edge and which is different than the first outside perimeter shape; and
- 15 placing the second laminar segment into the choke passageway, the first edge of only one of the first and second laminar segments frictionally engaging the choke passageway.

9. An elongate stack of interlocked laminae manufactured in accordance with the method of Claim 8.

10. A method of manufacturing an elongate stack of interlocked laminae in a die assembly having means for guiding strip stock material through the die assembly, stamping means and a choke passageway, said method comprising the steps of:

- stamping a first elongated lamina having generally opposed first, second, third,
- 5 and fourth edges in the strip stock material;
- stamping at least one first interlock element in the first lamina;
- separating the first lamina from the strip stock material;

placing the first lamina into the choke passageway, the first and second edges of the first lamina frictionally engaging the choke passageway;

stamping a second elongated lamina having first, second, third, and fourth edges in the strip stock material;

5 stamping at least one second interlock element in the second lamina;

at least partially engaging the first and second interlocking elements;

separating the second lamina from the strip stock material;

placing the second lamina into the choke passageway, the first and second edges of the second lamina frictionally engaging the choke passageway; and

10 frictionally engaging the choke passageway along the third and fourth edges of only one of the first and second laminae.

11. The method of Claim 10, wherein the first and second edges define the ends of the first and second laminae in the longitudinal direction of the laminae.

12. The method of Claim 10, further comprising a step of stamping one of a notch and a protrusion at one of the first and second edges of one of the first and second laminae.

13. The method of Claim 12, wherein said step of stamping one of a notch and protrusion occurs at a die assembly blanking station.

14. The method of Claim 12, further comprising one of a step of sliding a notch provided in a lamina over a ridge provided in the choke passageway and a step of sliding a protrusion provided on a lamina in a groove provided in the choke passageway.

15. An elongate stack of interlocked laminae manufactured in accordance with the method of Claim 10.

16. A die assembly for manufacturing a stack of elongate, slender laminae from strip stock material, said die assembly comprising:

5 a plurality of punching stations, each punching station having a punch for stamping features in strip stock material, said features defining elongate laminae each having generally opposite first and second edges and interlock means for engaging another lamina, and connected to a carrier portion of the strip stock material;

aligning means for positioning the strip stock material in said die assembly; and

a blanking station comprising a blanking punch disposed over an elongate choke cavity for separating a lamina from the carrier portion of the strip stock.

17. The die assembly of Claim 16, wherein said blanking punch includes a lower surface and at least one staking punch insert extending from said lower surface.

18. The die assembly of Claim 16, wherein said blanking station is provided with means for forming one of a notch and a protrusion at an edge of a lamina.

19. The die assembly of Claim 16, further comprising a choke passageway disposed below said blanking station and into which laminae are disposed.

20. The die assembly of Claim 19, wherein a surface of said choke passageway is provided with one of a notch and a ridge which cooperatively fits one of a protrusion and a notch provided in a lamina, whereby the lamina maintains its proper orientation in the choke passageway.

21. An elongate stack of laminae comprising at least one first lamina and at least one second lamina, said first lamina being the widest of all laminae in said stack, said second lamina having a width less than said first lamina, each said lamina in said stack interlocked to another said lamina.

22. The stack of Claim 21, wherein said stack is substantially cylindrical in cross-section.

23. The stack of Claim 21, wherein each said lamina has a first end and a second end, said laminae each having an equal distance between said first and second ends.

24. The stack of Claim 21, wherein said stack comprises a top lamina and a bottom lamina, only one of said top and bottom laminae having an interlock tab.

25. The stack of Claim 24, wherein one of said top and bottom laminae has a slot in which an interlock tab is received.

26. The stack of Claim 21, wherein each said lamina is flexible.

27. The stack of Claim 21, further comprising a longitudinal axis, each said lamina having a length which extends substantially in the direction of said axis.

28. The stack of Claim 27, wherein each said lamina has a grain, said lamina length lying substantially along said grain.

29. The stack of Claim 21, wherein each said lamina is coated with a dielectric material.

30. The stack of Claim 21, wherein said laminae are interlocked by a tab provided in one of said laminae, said tab interference-fitted into a slot provided in another of said laminae.

31. The stack of Claim 30, wherein said one lamina and said another lamina are adjacent.

32. An elongate stack of interlocked laminae comprising:

a first elongate, slender, relatively flexible lamina having a first interlock element, said first lamina having first and second generally opposed edges defining the ends of said first lamina in a first direction of said stack and having third and fourth generally opposed edges defining the ends of the first lamina in a second direction of said stack;

a second elongate, slender, relatively flexible lamina having a second interlock element interlocked with said first interlock element, said second lamina having first and second generally opposed edges defining the ends of said second lamina in said first direction of said stack, said first edges of said first and second laminae aligned to define a substantially planar surface of said stack, said second lamina having third and fourth generally opposed edges defining the ends of said second lamina in said second direction of said stack, one of said third and fourth edges of said first lamina not aligned with said third and fourth edges of said second lamina.

33. The stack of Claim 32, wherein the distance between said third and fourth edges of said first lamina is unequal to the distance between said third and fourth edges of said second lamina.

34. The stack of Claim 32, wherein said stack is substantially circular in cross-section.

35. The stack of Claim 32, wherein said stack is substantially cylindrical.